

## REMARKS

The Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

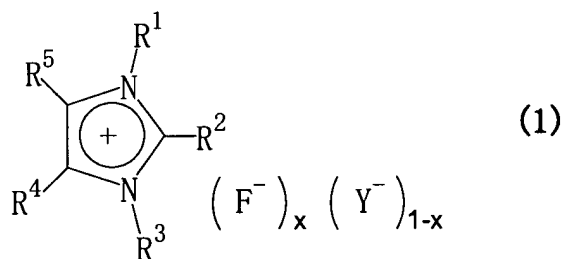
### **I. Status of the Claims**

Non-elected claims 1-12, 16, 18-21 are cancelled. Claim 13 is also cancelled. The Applicant reserves the right to pursue the subject matter of the cancelled claims in a subsequent divisional/continued application. Claims 15 and 17 are amended to reflect dependency on independent claim 14. No new matter has been introduced, and claims 14-15 and 17 are currently pending to be examined on their merits.

### **II. Claim Rejections – 35 U.S.C. § 102**

Claims 13-15 and 17 are rejected under 35 U.S.C. § 102(a) as allegedly anticipated by Urahata (CAS: 140:303126), and under 35 U.S.C. § 102(b) as allegedly anticipated by Hirano (CAS: 123:2847a), Miyauchi (CAS: 139:395934), Hagiwara (CAS: 138:45060), or Mori (CAS: 114:216779). The Applicant respectfully disagrees and traverses the rejection.

The imidazolium salt claimed in claim 14 is represented by the following formula (1):



wherein  $R^1$  and  $R^3$  are the same or different, and represent an optionally substituted alkyl group,  $R^2$ ,  $R^4$  and  $R^5$  are the same or different, and represent a hydrogen atom or an optionally substituted alkyl group,  $x$  satisfies  $0 < x < 1$ , and  $Y^-$  represents **a monovalent anion other than a fluoride ion**. Thus, the claimed imidazolium salt has **two** anions, one of the anions is a fluoride

ion ( $F^-$ ) and the other is a monovalent anion other than a fluoride ion. None of the prior art references disclose solutions with two anions.

Urahata discloses an imidazolium salt having one anion such as  $F^-$ ,  $Cl^-$ ,  $Br^-$ , and  $PF_6^-$ . However, it does not disclose or suggest an imidazolium salt having two kinds of anions, a fluoride ion and a monovalent anion other than a fluoride ion, as recited in the present claims.

Hirano discloses an imidazolium salt having one halide ion such as  $F^-$ . However, it does not disclose or suggest an imidazolium salt having two kinds of anions, a fluoride ion and a monovalent anion other than a fluoride ion, as recited in the present claims.

Miyauchi discloses an imidazolium salt having one anion such as  $F^-$ ,  $Cl^-$ ,  $Br^-$  and  $PF_6^-$ . However, it does not disclose or suggest an imidazolium salt having two kinds of anions, a fluoride ion and a monovalent anion other than a fluoride ion, as recited in the present claims.

Hagiwara discloses an imidazolium salt having one anion such as  $F^-$ ,  $Cl^-$ ,  $Br^-$  and  $PF_6^-$ . However, it does not disclose or suggest an imidazolium salt having two kinds of anions, a fluoride ion and a monovalent anion other than a fluoride ion, as recited in the present claims.

Mori discloses an imidazolium salt having one anion such as  $F^-$ ,  $Cl^-$ ,  $Br^-$  and  $PF_6^-$ . However, it does not disclose or suggest an imidazolium salt having two kinds of anions, a fluoride ion and a monovalent anion other than a fluoride ion, as recited in the present claims.

Because none of the references cited by the Office discloses each and every element recited in claim 14, none of the cited references can anticipate claim 14 and its dependent claims.

Applicant respectfully requests that the rejection be withdrawn.

### **III. Claim Rejections – 35 U.S.C. § 103**

Claims 13-15 and 17 are rejected under 35 U.S.C. § 103(a) as being obvious over Hirano. The Applicant respectfully disagrees and traverses the rejection.

(A) Current Obviousness Standard

The Supreme Court recently reaffirmed the Graham factors for determining obviousness in *KSR Int'l Co. v. Teleflex Inc.* (No. 04-1350) (U.S., April 30, 2007). The Graham factors, as outlined by the Supreme Court in *Graham et al. v. John Deere Co. of Kansas City et al.*, 383 U.S. 1 (1966), are: 1) determining the scope and contents of the prior art; 2) ascertaining the differences between the claimed invention and the prior art; 3) resolving the level of ordinary skill in the pertinent art; and 4) evaluating evidence of secondary consideration. The Supreme Court recognized that a showing of "teaching, suggestion, or motivation" to combine the prior art to meet the claimed subject matter could provide a helpful insight in determining whether the claimed subject matter is obvious under 35 U.S.C. § 103(a), and held that the proper inquiry for determining obviousness is whether the improvement is more than the predictable use of prior art elements according to their established functions. The Court noted that it is "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed, and specifically stated:

Often, it will be necessary . . . to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was ***an apparent reason to combine the known elements in the fashion claimed*** by the patent at issue. To facilitate review, this analysis should be made explicit.

*KSR Int'l Co. v. Teleflex Inc.*, slip op. at 14 (emphasis added). As discussed below, the cited art cannot render the claimed invention obvious.

(B) Hirano

As explained regarding the anticipation rejections, Hirano discloses an imidazolium salt having one halide ion, such as F<sup>-</sup>. However, it does not disclose or suggest an imidazolium salt having two anions, a fluoride ion and a monovalent anion other than a fluoride ion, as recited in the present claims. Because Hirano does not teach or suggest the limitation as recited in the present claims, one of ordinary skill in the art would not have been motivated to use the

imidazolium salt of Hirano to reach the claimed salt, and thus Hirano cannot render the present claims obvious. *See KSR Int'l Co.*

Moreover, the range of  $x$ , as recited in claim 14 ( $0 < x < 1$ ), does not overlap that disclosed in Hirano ( $x=1$ ). See page 8, Office Action. Thus, there is no inherent overlap, as alleged by the Office in the Office Action. The lack of teaching or suggestion of such limitation for  $x$ , as recited in the present claim, also indicates that one of ordinary skill in the art would not have been motivated to use the imidazolium salt of Hirano to reach the claimed salt. *See KSR Int'l Co.*

The claimed imidazolium salt with the recited range of  $x$  also provides unexpected results. For example, as shown in lines 16-17, page 10 of the Specification, the claimed imidazolium salt has a lower melting point than that of the imidazolium salt, wherein  $x=1$  (Hirano). Thus, the claimed imidazolium salt is not obvious over Hirano.

Therefore, the Applicant respectfully requests that the rejection be withdrawn.

### CONCLUSION

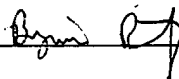
The Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, the Applicant hereby petitions for such extension under 37 C.F.R. § 1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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By 

FOLEY & LARDNER LLP  
Customer Number: 22428  
Telephone: (202) 295-4620  
Facsimile: (202) 672-5399

Benjamin A. Berkowitz  
Attorney for Applicant  
Registration No. 59,349